

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:** Please amend the claims as follows:

**We claim:**

**Claim 1. (Withdrawn)** A DNA molecule corresponding to a nucleotide sequence of a cereal pollen major allergen selected from one of the sequences in accordance with SEQ ID NO 1, 3, 5, 7, and 9.

**Claim 2. (Withdrawn)** A DNA molecule which hybridises with a DNA molecule according to claim 1 under stringent conditions and originates from DNA sequences from *Poaceae* species.

**Claim 3. (Withdrawn)** A DNA molecule, encoding a polypeptide, which cross-reacts immunologically with the major allergens Sec c 4, Hor v 4 or Tri a 4 from *Secale cereale*, *Hordeum vulgare* or *Triticum aestivum* and originates from DNA sequences from *Poaceae* species.

**Claim 4. (Withdrawn)** A DNA molecule, corresponding to a partial sequence or a combination of partial sequences according to claim 1, which encodes an immunomodulatory, T-cell-reactive fragment of a group 4 allergen from the *Poaceae*.

**Claim 5. (Withdrawn)** A DNA molecule, corresponding to a nucleotide sequence according to claim 1, encoding an immunomodulatory T-cell-reactive fragment, characterised in that said nucleotide sequence has been specifically modified by specific mutation of individual codons, elimination or addition.

**Claim 6. (Withdrawn)** A DNA molecule according to claim 5, characterised in that the said mutation results in the replacement of one, a plurality of or all cysteines of the corresponding polypeptide with another amino acid.

**Claim 7. (Withdrawn)** A recombinant DNA expression vector or a cloning system comprising a DNA molecule according to claim 1, functionally linked to an expression control sequence.



**Claim 8. (Withdrawn)** A host organism transformed with a DNA molecule according to claim.

**Claim 9. (Withdrawn)** A process for the preparation of a polypeptide according to claim 24, comprising

culturing a host organism transformed with the polynucleotide which encodes said polypeptide of (a)–(j); and  
isolating the polypeptide from the culture.

**Claim 10. (Previously Presented)** A polypeptide according to claim 24 which is

- (a) a polypeptide which comprises the sequence set forth in SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 8, or SEQ ID NO: 10; or
- (b) a polypeptide which is encoded by the polynucleotide whose sequence set forth in SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5, SEQ ID NO: 7, or SEQ ID NO: 9.

**Claim 11. (Cancelled)**

**Claim 12. (Previously Presented)** A medicament comprising at least one polypeptide according to Claim 24 and a carrier.

**Claim 13. (Previously Presented)** A pharmaceutical composition comprising at least one polypeptide according to claim 24 and an active ingredient or an adjuvant.

**Claim 14. (Withdrawn)** A method for the prevention, diagnosis and/or treatment of an allergy triggered by group 4 allergens from *Poaceae*, comprising administering to a subject in need thereof at least one polypeptide according to claim 24.

**Claim 15. (Withdrawn)** A DNA molecule according to claim 1 as medicament.

**Claim 16. (Withdrawn)** A recombinant expression vector according to Claim 7 as medicament.



**Claim 17. (Withdrawn)** A pharmaceutical composition comprising at least one DNA molecule according to Claim 15 and optionally further active ingredients and/or adjuvants for the immunotherapeutic DNA vaccination of patients with allergies in the triggering of which group 4 allergens from the *Poaceae* are involved and/or for the prevention of such allergies.

**Claim 18. (Cancelled)**

**Claim 19. (Cancelled)**

**Claim 20. (Cancelled)**

**Claim 21. (Previously Presented)** The polypeptide according to claim 24, which is a recombinant polypeptide.

**Claim 22. (Previously Presented)** The polypeptide according to claim 24, which is an isolated polypeptide.

**Claim 23. (Withdrawn)** A variant polypeptide, wherein at least one cysteine residue of a polypeptide sequence of SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 8 or SEQ ID NO: 10 has been replaced with another amino acid by site-specific mutagenesis.

**Claim 24. (Currently Amended)** A polypeptide which is

- (a) a polypeptide which is encoded by the polynucleotide comprising the sequence set forth in SEQ ID NO: 1 or a polypeptide which comprises the sequence set forth in SEQ ID NO: 2;
- (b) ~~a polypeptide comprising amino acids 23 to 518 of SEQ ID NO: 2;~~
- ~~(c)~~—a polypeptide which is encoded by the polynucleotide comprising the sequence set forth in SEQ ID NO: 3 or a polypeptide which comprises the sequence set forth in SEQ ID NO: 4;
- ~~(c)~~ ~~(d)~~ ~~a polypeptide comprising amino acids 23 to 520 of SEQ ID NO: 4;~~
- ~~(e)~~—a polypeptide which is encoded by the polynucleotide comprising the sequence set forth in SEQ ID NO: 5 or a polypeptide which comprises the sequence set forth in SEQ ID NO: 6;
- ~~(d)~~ ~~(f)~~ ~~a polypeptide comprising amino acids 23 to 518 of SEQ ID NO: 6;~~
- ~~(g)~~—a polypeptide which is encoded by the polynucleotide comprising the sequence set forth in SEQ ID NO: 7 or a polypeptide which comprises the sequence set forth in SEQ ID NO: 8; or



~~(e) (h) a polypeptide comprising amino acids 23 to 518 of SEQ ID NO: 8;~~

(i) — a polypeptide which is encoded by the polynucleotide comprising the sequence set forth in SEQ ID NO: 9 or a polypeptide which comprises the sequence set forth in SEQ ID NO: 10;  
or

~~(j) — a polypeptide comprising amino acids 23 to 518 of SEQ ID NO: 10;~~

**Claim 25. (New)** A polypeptide which is

- (a) a polypeptide consisting of SEQ ID NO: 2;
- (d) a polypeptide consisting of SEQ ID NO: 4;
- (c) a polypeptide consisting of SEQ ID NO: 6;
- (d) a polypeptide consisting of SEQ ID NO: 8; or
- (j) a polypeptide consisting of SEQ ID NO: 10.

**Claim 26. (New)** A polypeptide which is

- (a) a polypeptide consisting of amino acids 23 to 518 of SEQ ID NO: 2;
- (d) a polypeptide consisting of amino acids 23 to 520 of SEQ ID NO: 4;
- (c) a polypeptide consisting of amino acids 23 to 518 of SEQ ID NO: 6;
- (d) a polypeptide consisting of amino acids 23 to 518 of SEQ ID NO: 8; or
- (j) a polypeptide consisting of amino acids 23 to 518 of SEQ ID NO: 10.

**Claim 27. (New)** The polypeptide according to claim 26, which is a recombinant polypeptide.

**Claim 28. (New)** The polypeptide according to claim 26, which is an isolated polypeptide.